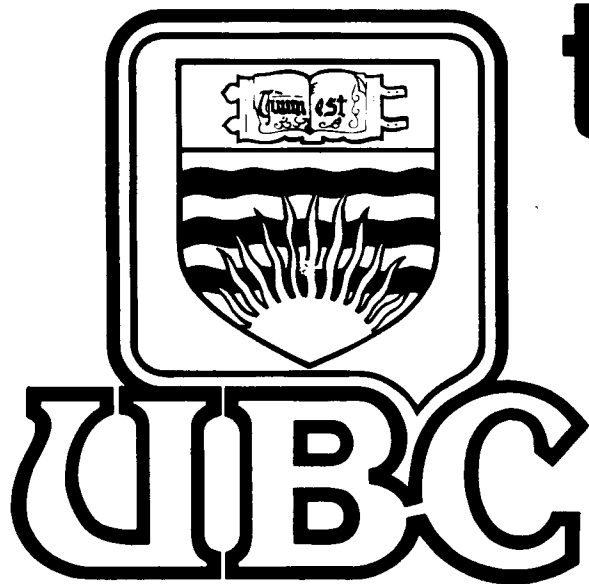


UBC Welcomes You to Open House



Future builders.

That's the general theme of this year's Open House at the University of British Columbia, which for 1984 features the Faculties of Agricultural Sciences and Forestry and the Engineering school.

Open House runs for three days — Friday, March 9, 10 a.m. to 5 p.m.; Saturday, March 10, 10 a.m. to 5 p.m.; Sunday, March 11, 12 noon to 4 p.m. The first day is primarily for secondary school and community college students, but the general public is also welcome. Special tours for schools can be arranged through Iris Thomson at 228-2980.

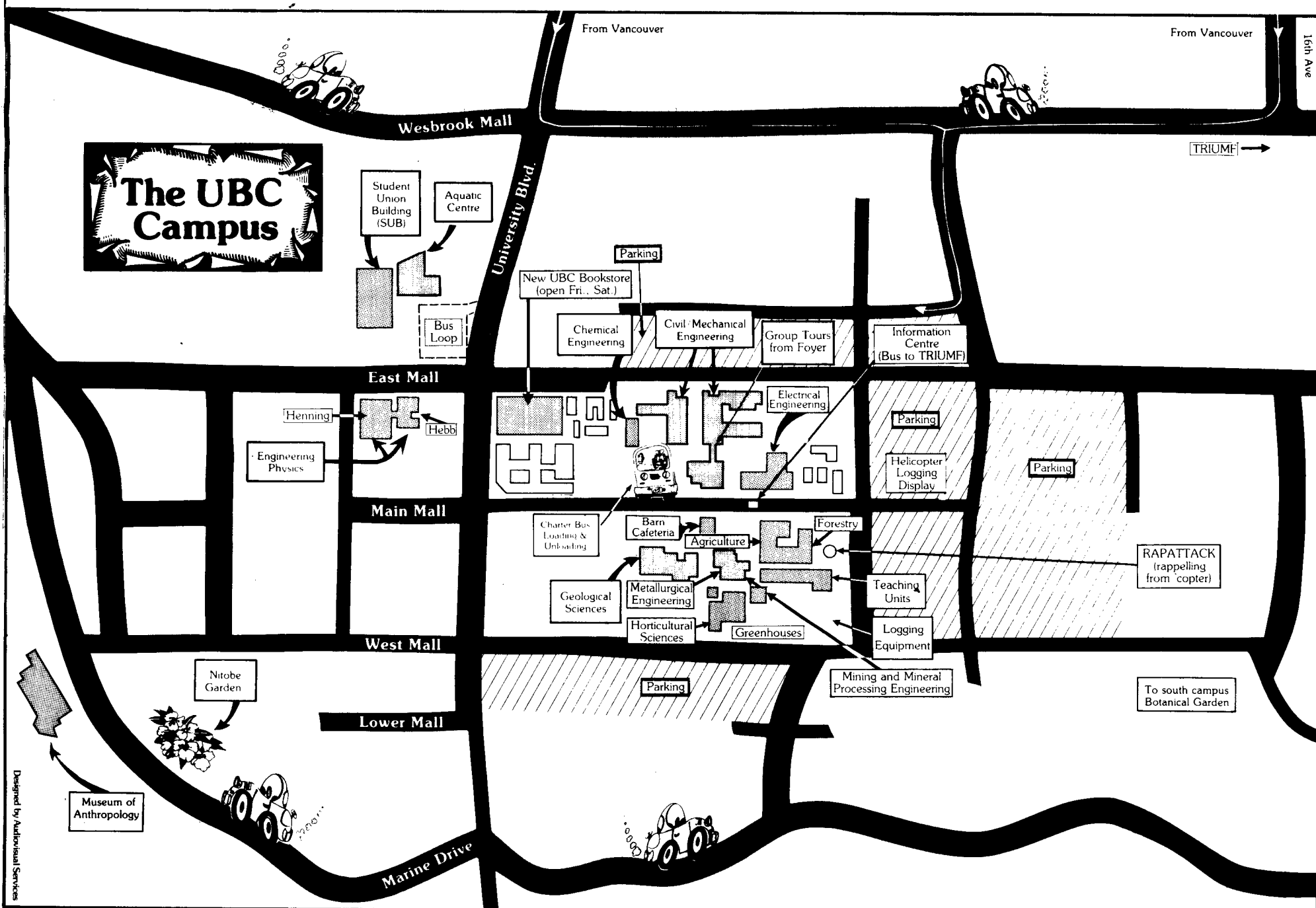
Professors and students of Engineering, Agriculture and Forestry have assembled more than 100 displays and exhibits, many of them being of the 'hands on' variety.

Visitors can play computer games, collect a free Douglas fir seedling or a potted begonia, inspect a logging helicopter and heavy logging equipment, make their own waves, play chess against a robot or check out a model of B.C. Place Stadium, showing the pressure on the dome and demonstrating how and why pedestrians are affected by the wind.

Tours of TRIUMF, the world's largest cyclotron, will also be available, with a shuttle bus running every half hour from the Open House information centre on Main Mall to the TRIUMF site on Wesbrook Mall.

The Museum of Anthropology will be open on all three days, as will the indoor swimming pool. Both attractions are free during Open House, as is admission to the Japanese Nitobe Garden.

Parking is free at all UBC lots.



FRIDAY
March 9

SATURDAY
March 10

SUNDAY
March 11

Engineering

With close to 1,800 students, UBC's Engineering school is by far the largest of the three areas featured in the 1984 Open House.

You won't find all of the Engineering displays in one building, but it will be well worth your while to make a complete circuit of the displays.

You can watch welding by a robot or welding by friction. You can make your own waves and you can watch some fascinating research that takes place in wind tunnels. You can even take home a medallion made of powdered copper turned solid via pressure and heat.

Some of the highlights are listed here, but keep your eyes open for many other displays.

How to find it: 'CEME 1059' is Room 1059 of the main Civil/Mechanical Engineering Building. All of the 4-digit rooms are in that building. The 3-digit CEME rooms are in the smaller building immediately to the left of the main building as you look at the map. Geological Sciences and Electrical Engineering are in separate buildings, shown on the map. Engineering Physics can be found in the Henning and Hebb buildings, well to your left as you look at the map. Chemical Engineering is also shown on the map. Two other Engineering locations are the Forward Building (Metallurgical Engineering) and the Coal Centre, both shown on the map.

- **Make a wave.** Visitors can make their own waves by adjusting wave height and length in this display. Experts will be on hand to answer questions. CEME 139.

- **Bridge vibrations.** A scale model of the original Tacoma Narrows Bridge which was destroyed by wind-induced vibrations in 1940 will be mounted in UBC's wind tunnel. See demonstrations of the effect of wind on bridge vibration. Also, look for a display on wind effects near B.C. Place Stadium. CEME 120.

- **Geology film festival.** Short color films depicting the movement of glaciers, the building of volcanoes and other geological phenomena will be shown continuously in the main foyer of the Geological Sciences Building.

- **Types of drilling.** Real equipment is used in a demonstration of the major types of drilling used in exploration geology. Geological Sciences foyer.

- **Rock cutting demonstration.** A tour of rock cutting facilities includes a demonstration of how rock can be cut into slabs only a tenth of a millimeter thick. Find out how these slabs can be used to identify minerals in the rock. Geological Sciences basement.

- **Spellex for the blind.** A machine that allows blind individuals to type and proofread their work will be on display. Electrical Engineering (MacLeod) 257.

- **Brain-wave display.** Brain-wave signals, known as electroencephalographic signals or EEG's for short, will be displayed on an oscilloscope. Electrical Engineering 255.

- **PET images.** The processing of images from a Positron Emission Tomograph will be shown using a VAX computer. Electrical Engineering 342.

- **Clinical engineering and health care.** Learn about the important role of UBC's clinical engineering program in a wide range of health care areas. Electrical Engineering 306.

- **Telidon page creation.** Visitors are invited to try their hand at creating graphic pages or pictures on a Telidon terminal. Electrical Engineering 339.

- **Rim saw display.** The rim saw is a new type of circular saw being developed for use in the sawmill industry. A working prototype will be on display. Electrical Engineering 130.

- **New coating process.** Research is under way in engineering physics for the development of materials and production machinery which will be used for the fabrication of large-area coatings on plastic film. One example of the application of this process would be transparent, heat-reflecting attachments for window insulation. Engineering Physics (Hennings) 118.

- **Can our robot beat you at chess?** A chess-playing robot will be on display, along with a small mobile robot that can see, hear and talk. Come and find out about the rapidly growing field of industrial robotics. CEME 1059.

- **UBC and space travel.** Find out about the space-oriented research being carried out in UBC's mechanical engineering department. The display outlines UBC's involvement with the Space Shuttle, describes research on communication satellites, and focuses on some recent research projects, including a project which deals with the construction of space stations using the shuttle. CEME 120.

- **Mechanical heart valves.** About 10,000 operations aimed at replacing diseased heart valves with mechanical devices are performed in Canada each year. Exhibit shows methods of testing mechanical valves for strength and fatigue life. CEME 119.

- **Earthquake simulator.** Come and test a new system designed to reduce the effect of earthquakes on buildings. An earthquake-resistant base isolated steel building is on display and spectators are invited to stand in the building or on surrounding ground while an earthquake is simulated on UBC's shaking table. CEME 1005.

- **Water and wastewater treatment systems.** A fully-operating, small-scale treatment plant for the biological and chemical treatment of water and wastewater is on display. Find out about UBC research on the treatment of polluted water from landfill sites. CEME 1301.

- **Quicksand and liquefaction display.** A sand whose voids are full of water can, under certain circumstances, become unstable and lose its capacity to support structures. Come and find out how landslides are caused and what happens to structures that are built on sand that has become "quick". CEME 1008.

- **Alternative fuels display.** Exhibit focuses on the use of alternative fuels, particularly natural gas, for both spark ignition and diesel engines. CEME 1115.

- **Aerodynamics of trucks.** With increasing fuel costs, considerable attention has been directed towards the improvement of truck configurations to reduce aerodynamic resistance. This resistance accounts for two-thirds of the total power consumption. New designs are tested in UBC's wind tunnel. CEME 120.

- **Satellite TV reception.** Engineering physics students have developed an inexpensive lense antenna which enables TV pictures to be picked up by satellite. Engineering Physics (Hebb). Watch for signs for exact location.

- **Production of controlled-release pheromones (chemicals).** Many insects communicate with each other by discharging chemicals (pheromones) into the air. Each insect species has its own pheromones. Equipment will be demonstrated which manufactures controlled-release pheromone dispensers used in attracting and trapping insects. Chemical Engineering 316.

- **Wood pulp.** The nature of pulp and the problems of pulp flow will be explained in this exhibit. Chemical Engineering 18.

- **Pulmonary microvascular exchange.** This computer simulation examines how fluids and proteins are distributed and transported in lung tissue. Chemical Engineering 108.

- **Free medallions.** To show how objects can be fabricated from metal powder, medallions will be prepared by pressing copper powder in a die at forces up to 40,000 kilograms. Take one home as a souvenir. Forward 119.

- **Mining and mineral process engineering.** On-going film and video shows, displays and computer terminal demonstrations related to the field of mining and mineral process engineering. Forward 506 and 519.

- **Rock mechanics.** Demonstration of rock testing equipment and methods using rock samples from Western Canadian mines. Forward 519.

- **Mineral process techniques.** Display of mineral processing research projects in the areas of ore grinding, mineral separation techniques and automatic process control. Centre for Coal and Mineral Processing, main floor.



Agriculture

Once again this year, the Faculty of Agricultural Sciences has more female students than male — and the reason seems to be that women like animals.

Although there are only marginally more women in food science, they dominate animal science and the pre-veterinarian program.

Agricultural economics, plant science, agricultural mechanics, poultry science, soil science and landscape architecture all have more men enrolled than women.

In total, the faculty has 222 women students and 167 men this year.

Agriculture has mounted some fascinating displays, ranging from live animals (sheep, cows, pigs) to a demonstration of how to measure a raindrop. You can sample a hard-boiled quail egg, get solutions to problems you may have with your houseplants, or learn how to 'candle' chicken eggs.

Most of the agriculture displays and exhibits are located in the MacMillan Building (see 'Agriculture' on the map) but you will find others in the Horticulture Building and adjacent greenhouses.

● **Animal breeding.** Display outlines methods of improving animal production using genetics, and explains the use of pedigrees, selection programs and crossbreeding. MacMillan labs 130 - 144.

● **South campus display.** A poster display and slide show on the dairy, sheep, swine and wildlife units on the South campus. Exhibit highlights research being carried out in these facilities. MacMillan labs 130 - 144.

● **Livestock industries of B.C.** Exhibit outlines the location, structure and economic contributions of the main livestock industries in our province. Learn about domestic production, imports and exports, and trends of the past 50 years in the livestock industries. MacMillan labs 130 - 144.

● **Soil animals.** Stereo microscopes are used to study soil animals collected from forest sites in the University Endowment Lands. The exhibit explains the role of these animals in the soil-forming process. MacMillan 154.

● **Egg quality exhibit.** Can you judge the quality of an egg? This display features chicken eggs of various grades in quality and an egg-candling device, along with information on criteria used in judging egg quality. MacMillan 260.

● **Domestic animal display.** Sheep, cows and pigs will be on display on the MacMillan loading dock.

● **See how raindrops are measured.** The size of raindrops can be determined by catching rain in a pan filled with sifted flour. See how this is done, and find out why measuring raindrops is critical in predicting soil erosion. MacMillan 154.

● **UBC's Quail Genetic Stock Centre.** A display of live Japanese quail and their hatching process. Sample a hard-boiled quail egg. MacMillan 260.

● **Landscape architecture.** Learn about urban agriculture, edible landscapes, open-space and shoreline planning. A color graphics terminal will "create" landscapes before your

eyes and show them growing. MacMillan 256.

● **Food Safety.** A display showing important nutrients in food and the role they play in maintaining a healthy body. Also, hazardous food constituents are identified and methods shown to measure the extent of these harmful constituents in our diet. MacMillan 258.

● **Animal feeds — Diets of Champions.** See the specialized feeds now being used on modern farms. A variety of feeds will be available for inspection — touch them, smell them, taste them if you wish! MacMillan 136.

● **Careers in Agriculture.** A display of career opportunities for graduates in the eight departments in the Faculty of Agricultural Sciences. Look for information on animal science, agricultural economics, soil science, poultry science, landscape architecture, plant science, agricultural mechanics and food science. MacMillan 160 and foyer.

● **Energy efficient greenhouses.** Poster display of experimental greenhouses located at Agriculture Canada, Saanichton, B.C. Construction photographs and energy conservation results on display outside MacMillan 76 to 90.

● **Managing garden soils of Vancouver.** A hands-on display of different soils from the Vancouver area, with guidelines on how to improve soil. Qualified people will be available to answer questions. MacMillan 154.

● **Hortline.** Exhibit highlights UBC's telephone advice and information service for gardeners. Students and faculty will be on hand to answer questions about plant problems. Horticultural Sciences 102.

● **Free potted plants.** A limited number of scented begonias, herbs, bedding plants and house plants will be given away each day. Horticultural Sciences 102.

MUSEUM PROGRAM

Here is the Museum of Anthropology program for Open House days: (Free admission).

Friday, March 9, noon - 5 p.m.

- 12:30 Lecture — *Is God Really A Sorcerer?* — some thoughts on recent fieldwork amongst the Maisin of Papua, New Guinea
- 1:30 Stone tool-making demonstration with museum archaeologists: Tsimshian houseboards research update.
- 2:30 Coast Salish tour of Museum.
- 3:00 Stone tool-making demonstration; Tsimshian houseboards research update.

Saturday, March 10, 10 a.m. - 5 p.m.

- 11:00 Imaginary Visions: Ethnic music.
- Noon Native Youth Workers program.
- 12:30 Stone tool-making demonstration; Tsimshian houseboards.
- 1:00 Sing We & Chant It: A Selection of a Cappella Italian and English Madrigals of the Renaissance Period.
- 2:00 Snake in the Grass Moving Theatre.
- 3:00 Mulberry Street jazz band.
- 3:30 Stone tool-making; Tsimshian houseboards.
- 4:00 Middle Eastern dance program.

Sunday, March 11, 11 a.m. - 5 p.m.

- 11:30 The Burrard String Quartet (UBC music students) present Mozart and Haydn.
- 12:30 Native Youth Workers program. Tsimshian houseboards.
- 2:00 African Heritage: Music from central, western and southern Africa.
- 3:40 Native Youth Workers program. Roving Giant Clowns from 12:30 on Sunday.

TRIUMF tours at Open House

Tours of TRIUMF, Canada's largest particle accelerator and the world's largest cyclotron, will be available on each day of Open House.

A bus will leave every half hour from the Open House Information Centre on Main Mall for TRIUMF, which is located south of 16th Avenue on Wesbrook Mall.

Once at TRIUMF, visitors are free to wander on a self-guided tour of the site. A tour guide book will be given to each visitor, containing basic information on each of eight tour stops and directions on how to get from one stop to another.

There will also be a guide at each of the eight stops to describe the area and answer questions.

TRIUMF is a world-class particle physics laboratory operated by UBC, Simon Fraser University, University of Victoria and University of Alberta. A tour of the facility takes about an hour.

The cafeteria at TRIUMF will be open for snacks and refreshments.



Forestry

There are just over 400 students enrolled in UBC's four-year program leading to a degree in Forestry, including 77 women.

Students and faculty have worked together to show you a broad representation of the type of research taking place in Forestry, and they have also arranged to bring a logging helicopter to campus, along with a display of heavy equipment used by loggers.

Forestry has also arranged with the Ministry of Forests to have RAPATTACK on campus for Open House. You can watch students rappel from a low-flying helicopter in a simulated attack on a forest fire. The idea is to get to the fire scene quickly, rappel by rope from the 'copter and then start cutting fire breaks and setting up a landing pad for bigger helicopters.

Forestry shares the MacMillan Building with Agriculture, but look for more Forestry displays in the small wooden buildings behind the MacMillan Building, and in adjacent parking lots.

● **Snowmelt during rain-on-snow.** A physical model will illustrate what happens in cleared and forested areas when rain melts the snow. There will

'Co-op' could be the way

The University of British Columbia would like to alert future students to its optional Co-operative Education Programs in the Faculties of Agricultural Sciences, Applied Science (Engineering) and Forestry. Co-op students alternate career-related, professional training with their University studies, thereby gaining valuable work experience before they graduate.

To learn about Co-op at UBC, come to the Co-op and Career displays at Open House, in the Civil and Mechanical Engineering Building and in the MacMillan Building. Or contact the Co-op office in Brock Hall, Room 213, phone 228-3022.

Indoor pool open 3 days

In addition to comfortable shoes, a swimming suit is a good idea at Open House. The UBC Aquatic Centre, which houses the best indoor pool in Canada, is open to everybody during the three days of Open House, and it is free.

The pool will be open to the public from 9:30 a.m. to 2:30 p.m. Friday, March 9, from 1 p.m. to 5 p.m. Saturday and from 10:30 a.m. to 5 p.m. Sunday.

Also open, and also free, is the magnificent Museum of Anthropology, on Marine Drive. You can tour the museum from noon to 5 p.m. Friday, 10 a.m. to 5 p.m. Saturday and from 11 a.m. to 5 p.m. Sunday.

also be a display and demonstration of instruments used in hydrology. MacMillan 187.

● **Remote sensing poster and stereoscopic viewing display.** Display outlines research in remote sensing as applied to forest resources management. This includes detection and assessment of forest damage resulting from insects, disease and air pollution, the use of color infra-red photographs, mapping logging operations from satellite imagery, and mapping and monitoring reindeer and caribou range conditions. MacMillan 266.

● **The forest/wildlife conflict.** In parts of B.C. there are serious conflicts between the production of wildlife and certain forestry practices. The display shows the nature of the conflicts and illustrates some novel solutions that are being attempted. MacMillan 256 and 258.

● **Life history of trees.** Douglas Fir seedlings and tree parts will be used to show the various stages of growth and development, from seed to maturity. MacMillan 170.

● **Forest ecology.** Recognizing and understanding the different types of forest ecosystems in the province, and predicting their response to management is the focus of this display. There will be a demonstration of the FORCYTE computer model and a computer game to see how well you can manage a forest. Also, test your skills in identifying plants.

● **Insects in the forests of B.C.** A display of insects found in B.C.'s forests and the damage they have done. MacMillan 290.

● **Fisheries/Forestry interaction.** Coordinated displays illustrating some of the problems involved in fisheries/forestry interaction and how they are solved.

● **Tree improvement.** Exhibit shows phases of forest genetics and tree improvement, the selection of "super" trees and how they can be reproduced. Free samples. MacMillan 180.

● **Helicopter logging.** Exhibit includes a Sikorsky S61 logging helicopter supplied by OK Heli Logging Ltd. A slide/movie presentation will show actual helicopter logging operations. Helicopter in B-Lot, display in Teaching Unit 4.

● **Heavy equipment.** This parking lot display features heavy equipment used in the logging industry. Students will be on hand to discuss the operation and use of the equipment. O-Lot (behind MacMillan Building).

● **Micro-computer forestry game.** A forest management game for the public to play, demonstrating the importance and economic value of decisions on planting, fertilizing, thinning and harvesting in forest management. Teaching Unit 4.



Don't forget to pick up a seedling in Forestry . . .

. . . and watch it grow!

